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Facial Feedback Hypothesis

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“Fake it ’til you make it” is a common phrase in contemporary popular media. The well-known expression suggests that, if we act a certain way, we will begin to embody the role or the state of mind that we are enacting. Whereas the reality of the claim has been disputed—or at least evidence exists for only very specific versions of the claim—this same intriguing idea underlies the *facial feedback hypothesis* (FFH). Grounded in general theorizing by Darwin (Darwin, 1872), who asserted that expressions used freely allow for greater experience of an emotion, as well as James (1980) about the physiological nature underlying our emotional expressions, the FFH was made more specific by Tomkins (1981). Specifically, he proposed that creating an expression on our faces, such as a smile of happiness, will help to bring about the very same emotional state through the connection between our facial muscles and our brains. This entry explores that proposal and related constructs about the ways in which our systems interlink.

Typically, we think that emotional expressions are the result of emotional *experiences*. That is, when we are feeling a certain way physiologically, we expect it to show up on our faces and bodies and in our voice. Whereas cultural display rules (i.e., socially agreed-upon standards that govern how, when, and why we display emotions in public) exist that may alter how we actually display an emotion, and people vary in how much and in what ways that expression reveals itself, we assume that, at some level at least, real emotions result in some kind of authentic and readable display. That is, if we experience grief, we will express it; if we are feeling joy, it will show on our faces and in our voice.

But to assume that *inauthentic* expressions (looking sad when we do not really feel that way; pretending to feel joy when we really feel dismay) can lead to actually beginning to have an emotional experience of that feeling—a phenomenon that has been called *efférance*—is counterintuitive. Yet, it is also compelling. It becomes even more compelling when we realize, as researchers claim, that being able to regulate our emotions can influence outcomes in areas ranging from psychotherapy to child-rearing. For these reasons and more, the FFH has received a fair amount of research attention.

Most of the initial research in the 1970s and 1980s supported the hypothesis. When people were asked to pose a particular expression, a process that tests directly the *inauthentic initiation* of an emotion, they also reported that they began to feel the way they looked (in general affect—positive or negative—if not in the actual emotion itself, i.e., happier). For instance, Ekman, Levenson, and Friesen (1983) asked their

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participants (scientists and professional actors) to move their faces in particular ways that the authors knew were the movements underlying six different emotions (anger, happiness, sadness, fear, disgust, and surprise). The authors found that each display was correlated with the same physiological responses (e.g., heart rate and skin temperature) to which the same emotions, when actually experienced, also link. Other studies elicited a particular negative emotion but asked the participants to show more positive affect than they were feeling. These have been called *modification* studies, in that the person was already feeling an emotion and was tested to see if he or she can feel more strongly. Participants in these studies did tend to, for example, believe that bad smells were not as bad when their facial expressions were more positive.

While encouraging, and supporting various versions of the FFH, this research paradigm was critiqued with a rival hypothesis: that people began to feel the emotion their face expressed largely because they assumed that was what they were supposed to do (even when, as in Ekman et al.'s, 1983, study, they were asked to move their faces not to express a particular emotion). This is known as a form of *researcher demand*. Subsequent studies tried to do a better test of the hypothesis. One, in particular, was promising for the hypothesis. Rather than asking their participants to smile, Strack, Martin, and Stepper (1988) had them hold a writing implement between their teeth. Holding it so mirrored the muscle movement used in a smile. Others were asked to hold in their lips. Those in the teeth-holding condition reported greater enjoyment than did those in the other group. Later work by the same principal author showed that emotional expressions, specifically furrowing the brows, can lead to more negative judgments of others, ostensibly because the brow furrowers' own psychological state was more negative.

The FFH has also been criticized for its use of self-reports for what someone is feeling, which compounds the rival hypothesis just noted. So, to determine how happy a participant is, that participant would have to record on a written measure how happy he or she was. But some work has relied more on physiological measures as a way to assess actual emotional experience. Lanzetta, Cartwright-Smith, and Kleck (1976), for instance, found that those participants asked to pose a strong reaction when receiving an electric shock experienced more negativity, as assessed on an electrodermal measure, than did those who were asked to show no emotion. The assumption is that the "demand" characteristics of acting out an expression should show up more when people were reporting on what they felt than when their feeling was assessed in a more automatic way.

Brow furrowing has been a primary research manipulation in FFH studies, and it has been studied in several additional ways. One set of researchers taped their participants' foreheads such that some resulted in having furrowed brows, and others did not. All participants judged "disagreeable" others as disagreeable. But only those with furrowed brows also viewed agreeable others as disagreeable, confirming the FFH. Other researchers use what have been described as "passive" techniques. For example, when the sun shining on participants makes them have, as above, a "furrowed brow," they tend to be more negative about the task in which they are engaged.

A more recent technique, known as voluntary facial action, still uses purposeful manipulation for smiles and frowns but has been applied to more specific tests of the

hypothesis. In particular, researchers have shown that the strongest effects of the FFH are for modulation (amplification of what one is feeling) rather than initiation of emotions (that is, they appear to work to make us feel more or less of an emotion we are feeling already than they do to make us feel a new emotion). Further, the effects are not just short lived: When the FFH has an effect, it tends to stay with us for a while.

Overall, there appears to be support for the FFH (though not all researchers concur; see Matsumoto, 1987), even though the effect sizes tend to be small. It is very clear that this hypothesis is a hard one to test in such a way as the researchers' expectations do not affect how the research participants feel. Even so, enough diverse methods have been applied to work in this area as to suggest that some version of the FFH is accurate.

The relationship of one's own facial expressions as connected to how one feels *about another* led to an extension of the facial feedback hypothesis known as the interpersonal facial feedback hypothesis (IFFH; Cappella, 1993). The idea behind this, somewhat different, prediction is that, as part of the process of *entrainment*, we tend to reciprocate or mirror others' behaviors. When our mirroring involves facial expressions, we may take on others' facial cues as our own. Moreover, our use of others' expressions may affect how we feel about them: In particular, when others smile at us, and we reciprocate their behavior, we also come to feel happier and to judge the other more positively.

But the opposite can also be true. Cappella cites other work showing how the negative faces of schizophrenic patients were often "caught" by the non-patients with whom they interacted. These more negative expressions tended to result in the non-patients feeling more negative than they had before. This "catching" of expressions is similar to the concept of emotional contagion, or the tendency to pick up on others' emotions and take them on as one's own.

Where the FFH and the IFFH result in relatively "small" effects and focus on only one set of cues, they appear to be a part of a larger set of processes that show just how complex human interaction can be, revealing the ways in which our own systems (physiological and psychological) may influence each other. It also shows how interconnected we are with others with whom we communicate. This set of processes are elsewhere known as *adaptation* and suggest how intricately connected are our personal and interpersonal systems. We can see this when our own systems are entrained, when our facial movements affect our feeling state. We can also see this when we are affected behaviorally by what another person is doing and our physical reaction leads to a change in our internal experience. Researchers offer an array of accounts for why we react to changes in our own and others' behaviors so quickly, with one explanation being that humans have what are known as "mirror neurons" that provide our capacity for responding automatically and in parallel to what others are experiencing (Rizzolatti & Craighero, 2004). Regardless of the underlying mechanisms, such adaptation shows up in all our interpersonal exchanges, more or less effectively, and allows us to coordinate our own behaviors and with others' actions.

SEE ALSO: Eye Behavior; Facial Expressions; Interaction Adaptation Theory

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